

New U.S. Application  
PRELIMINARY AMENDMENT

**PATENT**

**IN THE ABSTRACT:**

Please replace the original abstract with the substitute  
abstract attached hereto.

# **ABSTRACT**

Device to deliver an alarm signal upon detection of a gravitational wave generated by a body falling into a swimming pool, using a differential detector that includes a comparison device for comparing a sensitivity threshold value to the value of the electrical signal received, and to deliver an alarm signal when the received electrical signal exceeds the sensitivity threshold value. The electrical signal resulting from the detected waves is delivered to a comparator and allows a programmed microprocessor to deliver variable-width pulses to the input of the comparator so as to reduce the sensitivity of the device when the device detects an atmospheric disturbance. The microprocessor triggers the alarm when the width of the output pulses from the comparator is larger than a predetermined critical reference and when the frequency  $F$  of the analogue electrical signal lies between two predetermined values  $F1$  and  $F2$ .